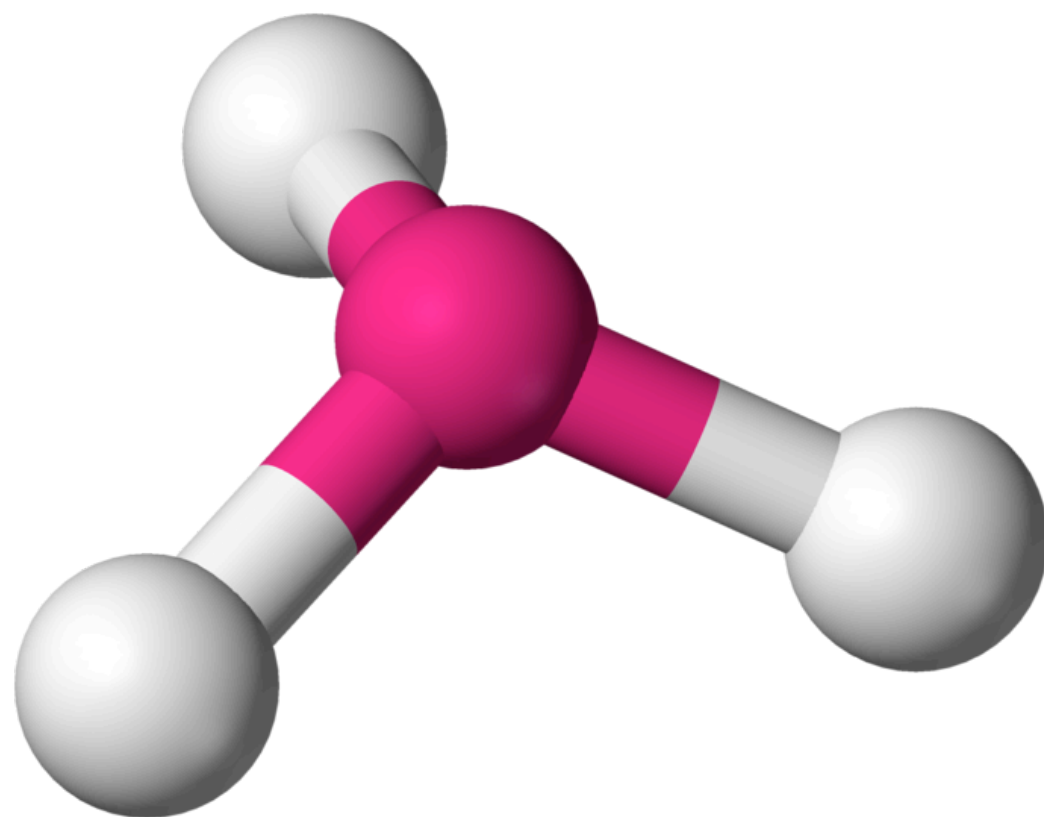
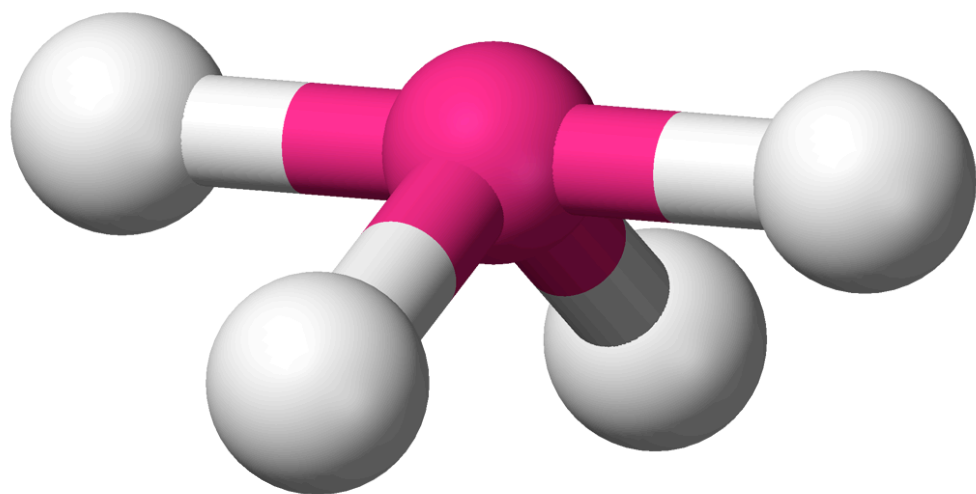




NH₃

C_{3v}

	E	2 C ₃	3 σ _v		
A ₁	1	1	1	z	x ² + y ² , z ²
A ₂	1	1	-1	R _z	
E	2	-1	0	(R _x , R _y), (x, y)	(x ² - y ² , xy), (xz, yz)



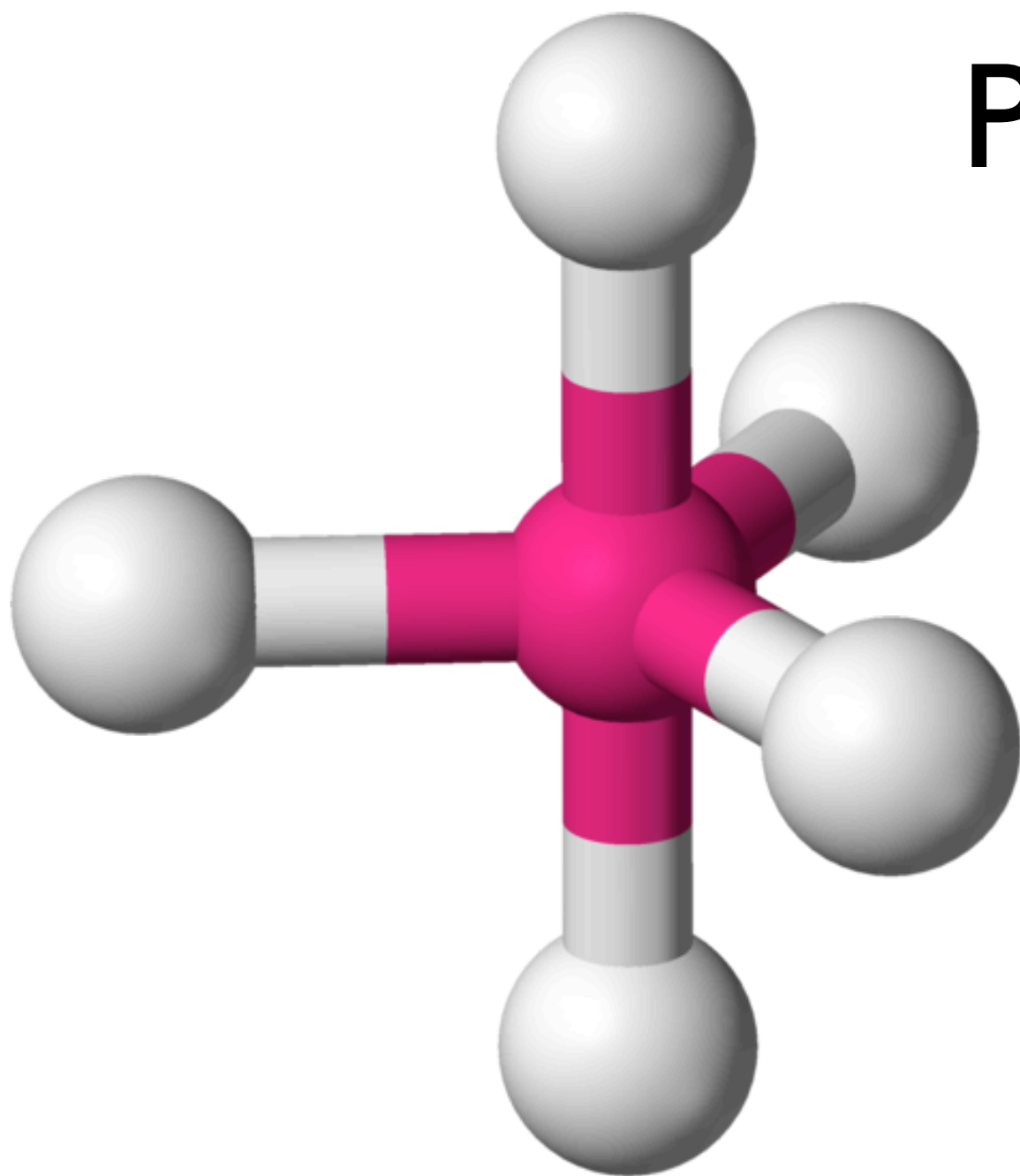
Seesaw Geometry



	E	C_2	σ_v	σ_v'		
A_1	1	1	1	1	z	x^2, y^2, z^2
A_2	1	1	-1	-1	R_z	xy
B_1	1	-1	1	-1	R_y, x	xz
B_2	1	-1	-1	1	R_x, y	yz

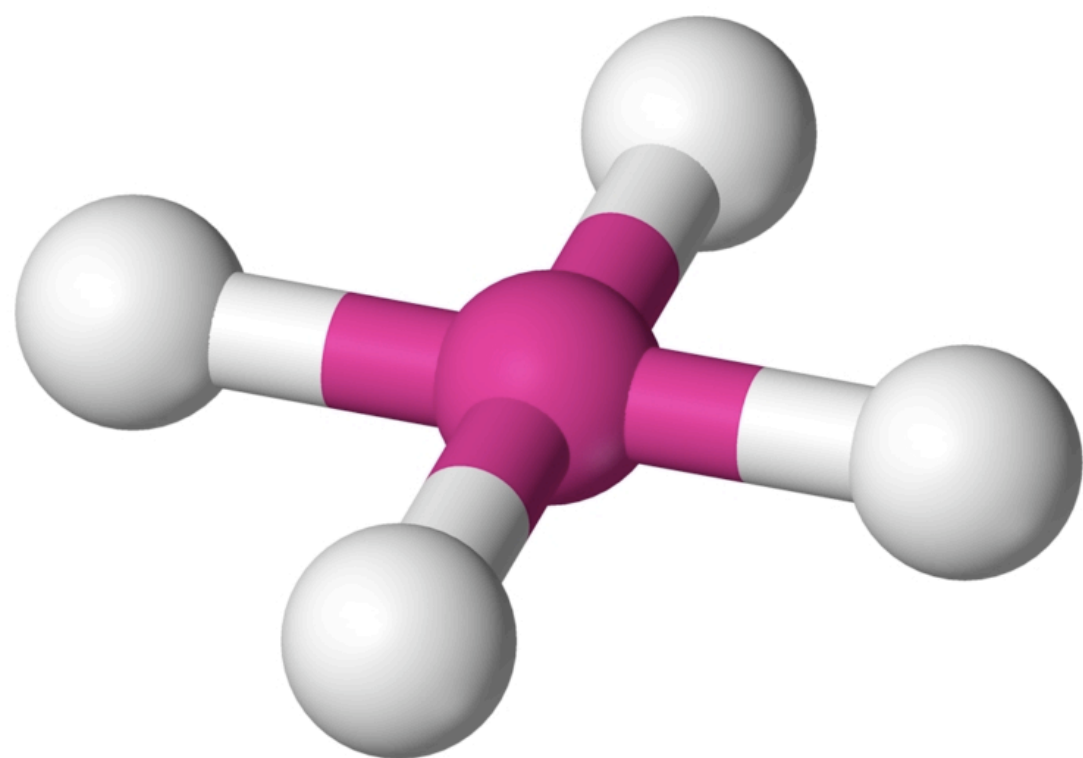
[illegible]

PCl₅



D_{3h}

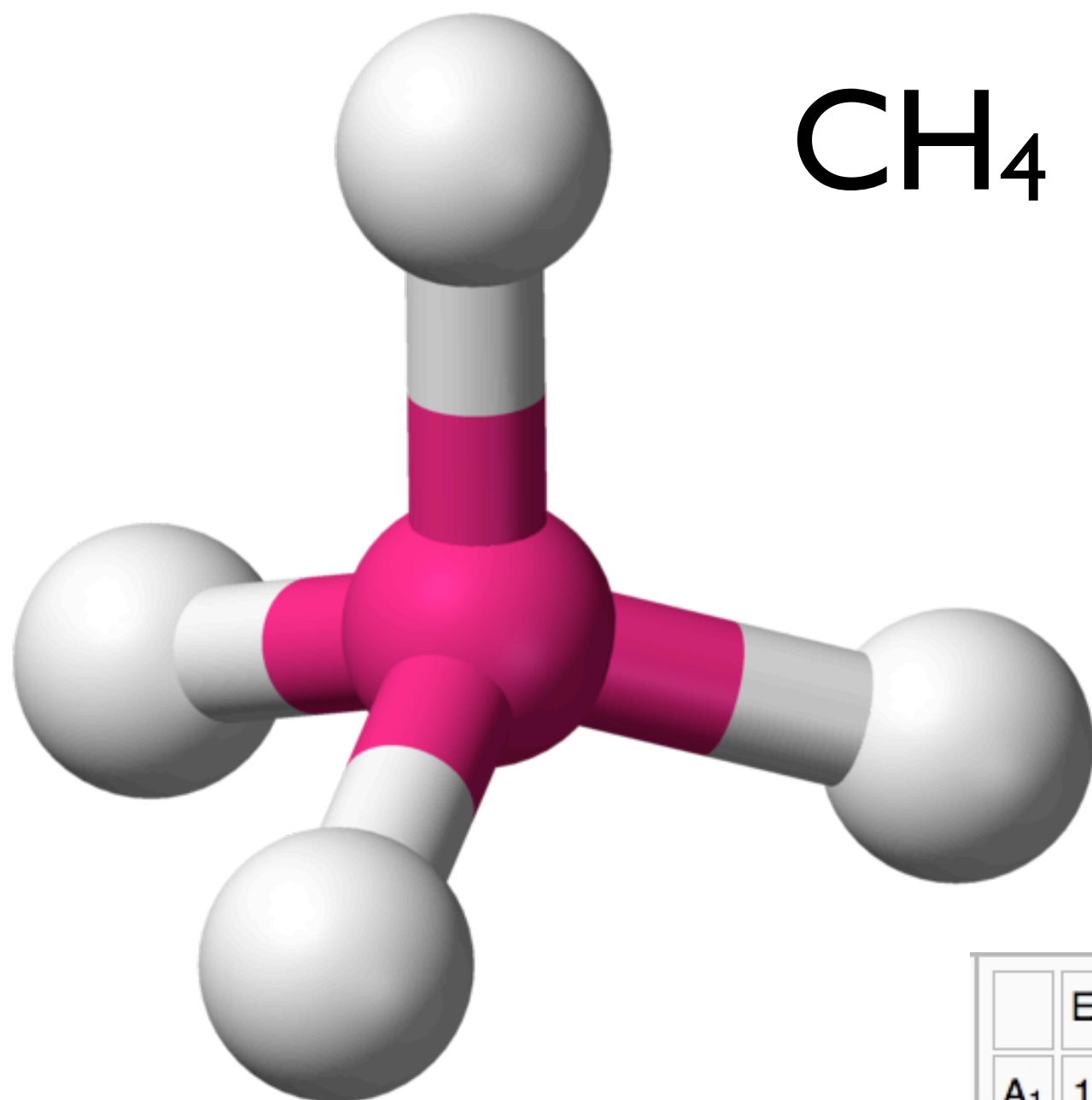
	E	2 C_3	3 C_2	σ_h	2 S_3	3 σ_v		
A ₁ '	1	1	1	1	1	1		$x^2 + y^2, z^2$
A ₂ '	1	1	-1	1	1	-1	R_z	
E'	2	-1	0	2	-1	0	(x, y)	$(x^2 - y^2, xy)$
A ₁ ''	1	1	1	-1	-1	-1		
A ₂ ''	1	1	-1	-1	-1	1	z	
E''	2	-1	0	-2	1	0	(R_x, R_y)	(xz, yz)



D_{4h}

XeF_4

	E	2 C_4	C_2	2 C_2'	2 C_2''	i	2 S_4	σ_h	2 σ_v	2 σ_d		
A_{1g}	1	1	1	1	1	1	1	1	1	1		$x^2 + y^2, z^2$
A_{2g}	1	1	1	-1	-1	1	1	1	-1	-1	R_z	
B_{1g}	1	-1	1	1	-1	1	-1	1	1	-1		$x^2 - y^2$
B_{2g}	1	-1	1	-1	1	1	-1	1	-1	1		xy
E_g	2	0	-2	0	0	2	0	-2	0	0	(R_x, R_y)	(xz, yz)
A_{1u}	1	1	1	1	1	-1	-1	-1	-1	-1		
A_{2u}	1	1	1	-1	-1	-1	-1	-1	1	1	z	
B_{1u}	1	-1	1	1	-1	-1	1	-1	-1	1		
B_{2u}	1	-1	1	-1	1	-1	1	-1	1	-1		
E_u	2	0	-2	0	0	-2	0	2	0	0	(x, y)	

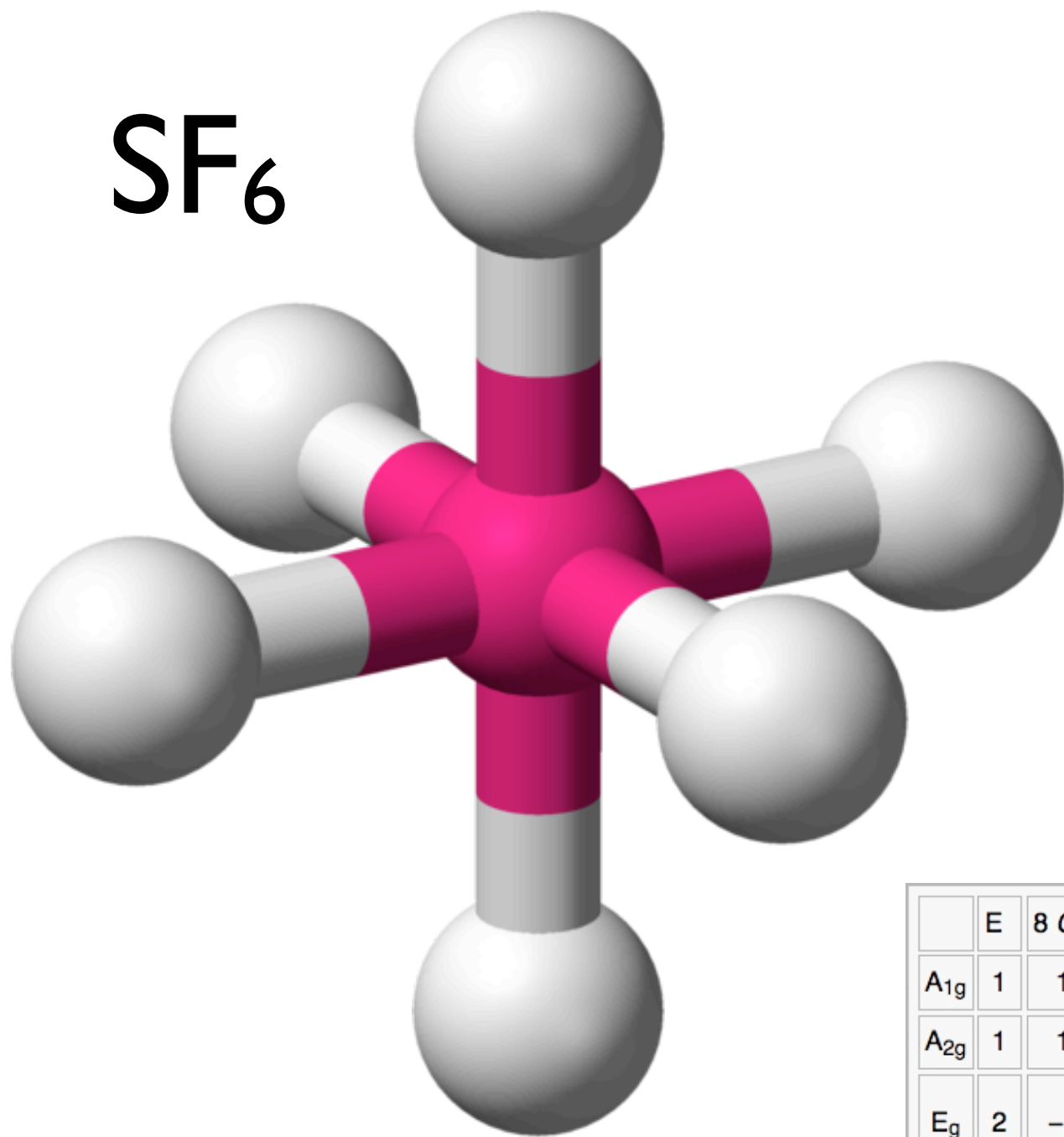


CH₄

T_d

	E	8 C ₃	3 C ₂	6 S ₄	6 σ _d		
A ₁	1	1	1	1	1		$x^2 + y^2 + z^2$
A ₂	1	1	1	-1	-1		
E	2	-1	2	0	0		$(2z^2 - x^2 - y^2, x^2 - y^2)$
T ₁	3	0	-1	1	-1	(R_x, R_y, R_z)	
T ₂	3	0	-1	-1	1	(x, y, z)	(xy, xz, yz)

SF₆



O_h

	E	8 C ₃	6 C ₂	6 C ₄	3 C ₂ (C ₄ ²)	i	6 S ₄	8 S ₆	3 σ _h	6 σ _d		
A _{1g}	1	1	1	1	1	1	1	1	1	1		$x^2 + y^2 + z^2$
A _{2g}	1	1	-1	-1	1	1	-1	1	1	-1		
E _g	2	-1	0	0	2	2	0	-1	2	0		$(2z^2 - x^2 - y^2, x^2 - y^2)$
T _{1g}	3	0	-1	1	-1	3	1	0	-1	-1	(R_x, R_y, R_z)	
T _{2g}	3	0	1	-1	-1	3	-1	0	-1	1		(xy, xz, yz)
A _{1u}	1	1	1	1	1	-1	-1	-1	-1	-1		
A _{2u}	1	1	-1	-1	1	-1	1	-1	-1	1		
E _u	2	-1	0	0	2	-2	0	1	-2	0		
T _{1u}	3	0	-1	1	-1	-3	-1	0	1	1	(x, y, z)	
T _{2u}	3	0	1	-1	-1	-3	1	0	1	-1		